

REMARKS/ARGUMENTS

Claims 24, 25, 28, and 32-34 were examined, with claims 29-31 and 35-37 having been withdrawn pursuant to a species election. The claims have been amended and canceled as noted above. Reexamination and reconsideration of the claims, as amended, are respectfully requested.

With respect to the species election, Applicants note that claim 29 has been amended to recite the species where the protrusion(s) are embedded in the shell. Applicants believe that claim 24 is allowable for the reasons discussed below. Thus, Applicants believe that claim 29 should remain in the application and be allowable with the allowance of independent claim 24. Claims 30, 31, and 35-37 have been canceled.

Claims 32-35 were rejected for indefiniteness. The Examiner objected to the phrase "a continuous terminus" since it is not described in the specification. Without conceding the correctness of this rejection, Applicants have canceled this phrase from claim 32. Thus, the objection for indefiniteness has been overcome.

Claims 24 and 25 were rejected as being anticipated by the Parker '862 patent. Again, without conceding the correctness of this rejection, Applicants have amended claim 24 to incorporate the limitation of claim 25 and clarify that there is at least one additional continuous protrusion on each edge of the hollow cavity of the shell. As conceded by the Examiner, Parker does not teach the disposition of protrusions of any sort on both edges as now required by claim 24. Thus, it is believed that the rejection for anticipation over Parker '862 has been overcome. Moreover, applicants believe that the inclusion of projectors on both sides of the hollow cavity would not have been obvious, even over the combination of Parker and Bergersen, for the reasons discussed below.

Claims 28 and 32-34 were rejected as being obvious over the combination of Parker with Bergersen '420. Such rejections are respectfully traversed.

Dependent claim 28 is allowable based on the allowability of independent claim 24, as amended. Independent claim 24 now recites that the removable elastic positioning appliance comprises a shell having a hollow cavity "with first and second edges" where

continuous protrusions are provided on each edge. The continuous protrusions are configured to fit in the undercut of a plurality of the teeth and to contact the plurality of teeth along the length of the gingival margin and interdental areas between the teeth. Neither Parker nor Bergersen teach such a structure.

The Examiner relies principally on the Parker '862 patent to teach the continuous protrusion. Such reliance is misplaced. While Parker does show a "projection 62" formed on the buccal side of the appliance, there is no teaching or suggestion in Parker that this projection be continuous, i.e., configured to fit in the undercut of a plurality of teeth and to contact the plurality of teeth along the length of the gingival margin and interdental areas between said teeth, as required by claim 24 as amended.

The Examiner relies on Fig. 10 and the teaching which begins at the bottom of Column 8 and which reads as follows:

A cross-section detail of a portion of appliance 58 in FIG. 10, shows projection 60 extending from upper component 52 inward against tooth 61 and projection 62 extending from lower component 54 inward against tooth 63 holding the appliance in place. Note that the height of contour 65 of each tooth lies occlusal to both projections 60 and 62 so that the walls of the appliance must be flexed outward in order to place or remove the appliance which provides the gripping force. In this figure projections 60 and 62 are exaggerated to better illustrate the attachment means. In an actual application, the projections would not flex the sides of the appliance outward nearly as much as would be required here.

There is nothing in Fig. 10, in the teaching at the bottom of Column 8, or elsewhere in the teachings of the Parker '862 patent which describes the projections 62 as being "continuous" so that they fit into the undercut of a plurality of teeth in contact with the teeth along the length of the gingival margin. Indeed, the illustration of Fig. 10 and the associated text appears to describe projections 60 and 62 which engage a single tooth and which are not continuous along a plurality of teeth. The text describes projection 60 as "extending from upper component 52 inward against tooth 61 and projection 62 extending from lower component 54 inward against tooth 63 holding the appliance in place." No teaching, illustration, or other suggestion that these projections extend so that they engage more than one tooth is provided.

Nor do the teachings of Bergersen '420 provide what is missing from Parker '862. Bergersen shows only a protrusion 60 which is intended to enter the interdental area between adjacent teeth. The protrusion 60 is not shown to extend continuously along the gingival margin, as required by the claims herein.

The Examiner argues that Applicants are relying on the claimed "intended use" of the product to distinguish Parker. Such is not the case. Applicants are entitled to rely on reciting structure as it interfaces with anatomy, and that is exactly what they've done. The protrusion claimed in independent claim 24 is required to be continuous and "configured to fit in the undercut of the plurality of teeth and to contact said plurality of teeth **along the length of the gingival margin and interdental areas between said teeth.**" The projections of Parker and protrusions of Bergersen do not meet these structural requirements.

Independent claim 32 even more clearly distinguishes the teachings of Parker and Bergersen. Claim 32 more specifically recites a shell having a channel with a first buccal surface and a second lingual surface for engaging teeth. A first continuous protrusion is disposed along the edge of the first wall and a second continuous protrusion is disposed along the length of the second wall, where each protrusion spans "the length of each edge" and is "sized to fit the undercut of the teeth and contact the teeth along the length of the gingival margin and interdental areas of the teeth on both the buccal side and the lingual side of the teeth to hold the appliance in position." No such continuous protrusion spanning the entire length of an appliance is described in either Parker or Bergersen.

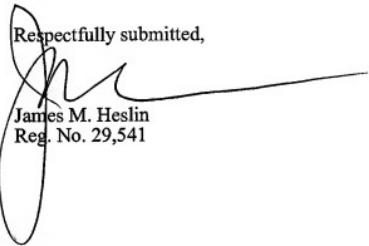
For these reasons, Applicants believe that independent claims 24 and 32 clearly distinguish the teachings of the prior art and that these independent claims and all claims dependent thereon are in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


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